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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,304	03/29/2001	Alain Brochez	BROC3001/JEK	6723
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Bacon & Thomas 4th Floor 625 Slaters Lane Alexandria, VA 22314			EXAMINER GARCIA, ERNESTO	
			ART UNIT 3679	PAPER NUMBER
			MAIL DATE 03/17/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

09/806,304

Applicant(s)

BROCHEZ, ALAIN

Examiner

ERNESTO GARCIA

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 85-96 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 85-96 is/are rejected.
- 7) ☒ Claim(s) 88 and 96 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office.

Drawings

The drawings were received on January 8, 2009. These drawings are accepted. However, the drawings changes introduce new discrepancies and not all drawing objections have been overcome.

The drawings are objected to because the lead line of reference character "40" in Figure 40 is not pointing to the part it suppose to represent thus making unclear what reference character "40" represents.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "5" (Figure 3) , "6" (Figure 3), and "40" (Figure 6) have both been used to designate the same part. Note that this objection has not been overcome. Applicant argues that "40" is directed to a portion of the insert parts 5, 6. In response, it should be noted that the specification contradicts the argument since "40" has been described as "resilient members" and not portions as argued. Further, the argument does not describe what portion that is. Assuming that the portion the

applicant refers to is the portion identified by numeral "28" or "27", this would raise other drawing objections since two reference characters cannot designate the same part.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

the designation "2-3" on substitute page 5, lines 3, 7, 14, page 13, lines 23, 26, and 29-32, page 14, line 2, 11, 17, and 23, page 15, line 18, and page 16, line 6, is misleading as there is no reference character "2-3" in the figures. This should be amended to be deleted the dash to read --2, 3--. Note that this occurs in many places with different numbers. See "5-6" on page 5, line 6, on page 8, line 26, page 11, line 4, and "page 12, lines 16 and 23, "7-8" on page 5, line 7, "26-29-28,29" on page 22, line 22, "27-28" on page 11, line 8, "9-10" on page 11, lines 26 and 30, and page 12, line 14, and "55-56" on page 16, line 20;

on page 11, line 8, "parts" in line 8 should be --parts 5, 6-- to identify the parts;
and,

the description of reference character "40" on page 11, line 5, is inconsistent with that on page 11, line 14. Appropriate correction is required.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "a resilient member comprising said second leg and a connecting leg situated in an extension of said second leg" recited in claim 92, lines 2-3.

Claim Objections

Claim 85 is objected to because of the following informalities:

regarding claim 85, the recitation "wherein a mutual ... by locking means" in line 7-8 should be rephrased to be a proper "means" plus function recitation (i.e., --locking means for...--) rather than a method step format. An example would be --locking means for mutual interlocking of the corner piece and the side members--. The recitation --said-- should be inserted before "lips" on line 9, the second occurrence of "the" on line 28 should be deleted, "form means to" on line 33 should be deleted, "the" on line 37 should be deleted, --the-- should be inserted before "pre-stress", and "obtained" on line 37 should be deleted. Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "compression force has been created in the side members ends by pushing off both side members on the locking means" recited in claim 85, lines 20-21.

Claim Rejections - 35 USC § 112

Claims 85-96 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 85, the recitation "the lip projection" in line 12 lacks proper antecedent basis. The recitation "the material" in line 17 makes unclear whether the material is that the channels or that of the insert part. The recitation "can be" in line 24 makes unclear whether there is pressure increase or not. Further, relative to what is the pressure compared to render an "increase"? Is there pressure before hand? It is not clear what "total mitre", lines 18-19, sets forth that is not already required by "mitre". Further, it is not clear what constitutes "useful" since this term is subjective and such has not otherwise been defined. Line 23, it is not clear what the corner piece is "situated deeper" than. The recitation "the inclined parts being equipped with resilient members" in line 26 makes unclear whether the resilient members are different parts than the insert parts as in additional features, or the insert parts are themselves the resilient members. Line 30, it is not clear whether or not an actual free space is being required or not. Note that the claim apparently permits material to be present as long as it is not "massive" material. Furthermore, "massive" is subjective and has not otherwise been defined. Accordingly, what constitutes a "massive material"? The recitation "the pressure" in line 34 makes unclear whether this is a different pressure than that recited in line 24 or another pressure. The recitation "the locking means comprising material parts which are upset by compressing the material" in lines 16-17 is redundant and unclear. This appears to set forth the same concept of the lips in lines 8-9 since the locking means are the lips. Last two lines of claim 85, is "the obtained mitre" supposed to be one and the same with the previously recited "total mitre"? If so, then the

terminology used must be consistent. If not, then there is no antecedent basis for this term.

Further, the recitation "the tensile forces in the resilient members resulting in pressure forces in the outer and inner walls" in lines 36-37 makes unclear how the tensile forces in the resilient members results pressure in the outer and inner walls.

Applicant asserts that the claim element "locking means" is a means plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, it is unclear whether the claim element is a means plus function limitation that invokes 35 U.S.C. 112, sixth paragraph, because it lacks the function. If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to:

(a) Amend the claim to include the phrase "means for" or "step for" in accordance with these guidelines: the phrase "means for" or "step for" must be modified by functional language and the phrase must **not** be modified by sufficient structure, material, or acts for performing the claimed function; or

(b) Show that the claim limitation is written as a function to be performed and the claim **does not** recite sufficient structure, material, or acts for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph. For more information, see MPEP § 2181.

The claim limitation "locking means" uses the phrase "means", but it is modified by some structure recited in the claim. It is unclear whether the recited structure is sufficient for performing the implied function which would preclude application of 35 U.S.C. 112, sixth paragraph, because the claim has specifically set forth the corresponding structure in the claim.

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that the phrase "means for" or "step for" is clearly **not** modified by sufficient structure, material, or acts for performing the claimed function.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that it will clearly not be a means plus function limitation (e.g., deleting the phrase "means for" or "step for").

With respect to claim 87, what constitutes a "buckled shape"?

Regarding claim 88, the metes and bounds of the claim is unclear. In particular, it is unclear what is meant by "use is made of stop-parts" as recited in lines 1-2. Are stop-parts being required or not? Further, the recitation "the pressed-in lips of the locking means" in line 2 is unclear. It seems that the recitation appears to previously set

forth that the lips are secondary features to the locking means when claim 85, line 8, has established that the locking means are the lips.

Regarding claim 95, the metes and bounds of the claim is unclear. In particular, it is unclear where the "elastic press-on elements" in line 6 are provided. The recitation "support and guiding elements" in line 11 makes unclear whether the recitation describes two separate features or the elements are merely labeled "support and guiding" rendering one type of elements. Further, the claim does not set forth where the flaps are arranged.

Regarding claim 90, the recitation "the inclined parts are a fragment of the first leg" makes unclear whether both the inclined parts are just one leg, if so, how does this happen to be. It seems that each inclined part is rather the first leg.

Regarding claim 91, the metes and bounds of the claim is unclear. In particular, it is unclear how the joint being part of a frame in which the frame includes a panel further limits the corner joint. This claim appears to rather define a frame rather than a corner joint.

Regarding claim 92, the recitation "a resilient member" in line 1 makes unclear whether this is another resilient member than that recited in claim 85, line 26, or another different resilient member.

Regarding claims 93 and 94, it is unclear where the resilient members are arranged to function accordingly. Further, what is structurally different about these claims? Note that the claims fail to further limit the corner joint.

Regarding claims 86, 89 and 96, the claims depend from claim 85 and therefore are indefinite.

Claim Rejections - 35 USC § 103

Claims 85, 86, and 95 are rejected under 35 U.S.C. 102(b) as being anticipated by Ekstein, 3,797,194, in view of Ronnlund, EP-549,554, and further in view of Heggen, WO91/15314.

Regarding claim 85, as best understood, Ekstein discloses, in Figures 2 and 4, a corner joint comprising two frame side members **12, 14** and at least one corner piece **16**. The side members **12, 14** have attachment channels **62, 64** and mitered end portions (the miter portions). The corner piece **16** has two insert parts **74, 76** joined at connecting ends and positioned relative to one another at a predetermined angle (90 degrees). Each of the insert parts **74, 76** configured to be received by the mitered end portions of a respective one of the attachment channels **62, 64**. The attachment channels **62, 64** are confined by an inner wall **36, 66** and an outer wall **18, 48**. The joint

further includes locking means **108, 110** for mutual interlocking the corner piece **16** to the side members **12, 14**. The locking means **108, 110** comprise lips **108, 110** defined by a pressed-in material part of the outer wall **18, 48**. The lips **108, 110** cooperate with notches **A1** (see marked-up attachment) defined on the corner piece **16**. Each of the insert parts **74, 76** includes at least one of the notches **A1** comprising a triangular shape defined by a first side **A2** against which the lip **108, 110** is positioned and a second side **A3**. The locking means **108, 110** generates pre-stress as pressure on both side members **12, 14** and tension in the corner piece **16**. The locking means **108, 110** comprises material parts **108, 110** upset by compressing material of the side members **12, 14**. The upset of the material parts **108, 110** has a useful working force on a mitre. A compression force is created in the side members ends by pushing off both side members **12, 14** on the locking means **108, 110**. The corner piece **16** comprises inclined parts **96, 97** defining a pressure zone between the locking means **108, 110** and a place on the inner wall **36, 66** which is situated deeper in the attachment channels **62, 64** so that pressure is between the place and the locking means **108, 110**. The insert parts **74, 76** comprise resilient members **77** connected to one another at an angle (90 degrees). The inclined parts **96, 97** are respectively connected to the free ends of the resilient members **77**. A free space or clearance (between feature 78 and 100) free of massive material is provided on an outside corner of the corner piece **16**. The free space or clearance extends from the locking means **108, 110** to at least the connecting end of the insert parts **74, 76**. The inclined parts **96, 97** create a tensile force in the resilient members **77** since pressure in the inclined parts **96 97** results in a tension in

the resilient members **77** (this is an inherent feature). The tensile forces in the resilient members **77** result in pressure forces in the outer and inner walls thus contributing to rigidity and pre-stress of the mitre as a whole.

However, Ekstein, fails to disclose the triangular shape of the notch **A1** defined by a first side **A2** against which the lip **108, 110** is positioned being longer than a second side **A3** over which a free end of the lip **108, 110** is pressed in. Instead, the triangular shape of the notch appears to be symmetrical thus creating an isosceles triangle versus a right angle triangle thus giving the required sides as claimed. Ronnlund teaches, in Figure 3, a triangular shape of a notch **14** being defined by a first side against which a lip **20** is positioned being longer than a second side over which an end of the lip **20** is pressed in to correspond in shape of the notch thus creating a strong joint (col. 3, lines 47-55). Therefore, as taught by Ronnlund, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the shape of the triangle defined by a first side against which the lip is positioned being longer than a second side over which an end of the lip is pressed in.

This modification however does not result a free end of the lip to be pressed in the second side. Heggen teaches in Figures 3 and 4, a free end of a lip being pressed in a second side so that the outer wall of a channel is pressed in a second end of triangular shape to make a punched in connection while cutting through the outer wall. Therefore, as taught by Heggen, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to make the free end of the lip of Ekstein press in a second side that is shorter than a first side of triangular shaped notch to make a pressed in connection while cutting through the outer wall.

Regarding claim 86, given the modification, the second side would have extended substantially perpendicular to a longitudinal direction of the lip projection.

Regarding claim 95, the corner piece is provided with positioning elements **78, 79** including elastic press-on elements **101** or support and guiding elements **78, 79** provided on the corner piece in the shape of a little leg **78** having elastically bendable flats **79**.

Claims 87, 89, 90, and 92-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekstein, 3,797,194, in view of Ronnlund, EP-549,554, and Heggen, WO91/15314, as applied to claims 85, 86, and 95, and further in view of Brochez, WO2005/033459.

Regarding claim 87, Ekstein, as modified, fails to disclose the second side of the notch having a buckled shape. Brochez teaches, in Figure 2, a second side of a notch having a buckled shape (curved shape) so that the lip does not encounter a sharp corner versus one with a curved corner. Therefore, as taught by Brochez, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

provide the second side of the notch with a buckled shape (curved shape) to prevent the lip against a sharp corner versus one that is buckled shaped, i.e., curved shaped.

Regarding claim 89, Ekstein, as modified, fails to disclose the insert parts including an end portion geometrically in the shape of a triangle having an apex directed along a longitudinal axis of the respective attachment channel, each insert part defining a second leg arranged to be urged against the inner wall of the respective attachment channel, a first leg connecting at a first end with a first end of the second leg to form the apex and extending at an oblique angle relative to the second leg in a direction generally proximal to the corner portion and a third leg extending obliquely relative to the second leg in a direction generally proximal to the corner portion and connecting to the second leg. Brochez, teaches, in Figure 2, insert parts including an end portion geometrically in the shape of a triangle having an apex directed along a longitudinal axis of the respective attachment channel **11**, each insert part **27, 28** defining a second leg urged against the inner wall of the respective attachment channel. A first leg connecting at a first end with a first end of the second leg to form the apex and extending at an oblique angle relative to the second leg in a direction generally proximal to the corner portion and a third leg extending obliquely relative to the second leg in a direction generally proximal to the corner portion and connecting to the second leg to allow the corner piece to be inserted into the attachment channel using guiding surfaces of the legs. Therefore, as taught by Brochez, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the insert parts of Ekstein

with insert parts having an end portion in the shape of a triangle to allow the insert parts to be inserted into the attachment channels with ease.

Regarding claim 90, as best understood, given the modification, the first leg would have been the inclined part.

Regarding claim 92, as best understood, given the modification, the resilient member would have comprised of the second leg and a connecting leg situated in an extension of the second leg. Further, the end portion and the resilient member of each of the insert parts would have been connected to one another at an angle.

Regarding claims 93, as best understood, given the modification, the resilient members would have been positioned generally along the inner wall of the respective attachment channel.

Regarding claim 94, as best understood, given the modification, the resilient members would have been arranged generally along the inner wall of the respective attachment channel such that the tensile force is optimally transmitted to the inside corner.

Claim 91 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ekstein, 3,797,194, in view of Ronnlund, EP-549,554, Heggen, WO91/15314, and Brochez,

Art Unit: 3679

WO2005/033459, as applied to claims 87, 89, 90, and 92-94, and further in view of Rhodes, EP- 412,669.

Regarding claim 91, Ekstein discloses the corner joint being part of a frame in which a panel is provided. However, the panel is not wedged up by wedges. Rhodes teaches, in Figure 1-3, retaining a panel with wedges 46, 48 to wedge the panel between the frame side members thus making difficult and time consuming to remove the panel during burglary. Therefore, as taught by Rhodes, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide wedge members to retain the panel of Schulz between the frame side members thus making the panel from being removed with difficult during burglary (col. 1, lines 33-35).

Allowable Subject Matter

Claims 88 and 96 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

regarding claim 88, the prior art of record does not disclose or suggest a corner joint comprising stop parts being carried out in relief in the shape of a serration. The closest prior art, Ekstein, 3,797,194, disclose stop parts 178, 78; however, these do not carry a serration and,

regarding claim 96, the prior art of record does not disclose or suggest a corner joint comprising a corner piece including a clearance generally defined at an inside corner where insert parts connect and having a hook-shaped profile. The closest prior art of record, Rottner, DE-2,522,523, only discloses a square recess, and Kreusel, DE-2,532,890, teaches a round recess.

Response to Arguments

Applicant's arguments with respect to claims 85-94 have been considered but are moot in view of the new grounds of rejection. In particular, note the 35 USC 112, 2nd paragraph rejections.

Conclusion

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Habicht, DE-4,303,877, shows a similar corner joint.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. In particular, the new recitations "the locking means generate a

press-stress ... the material" in claim 85, lines 15-17, "the insert parts being equipped with resilient member which are connected to one another at an angle" in claim 85, lines 26-27, and "a free space or clearance free ... of the insert parts" in claim 30, lines 30-32, necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30AM-6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/E. G./

Examiner, Art Unit 3679

March 17, 2009

Attachment: one marked-up page of Ekstein, 3,797,194

/Daniel P. Stodola/
Supervisory Patent Examiner, Art Unit 3679

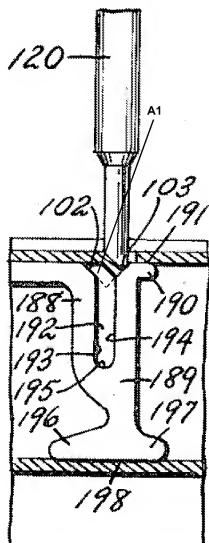


Fig. 3